

EGLE Classroom EnviroSchool Webinar Series

December 5, 2023: Think Global, Teach Local: Michigan-based Curriculum Connections for Climate Change Education

Presenter Contact Info:

Bridget Booth, Haslett Middle School, Michigan Alliance for Environmental and Outdoor Education: boothb@maeoe.com, boothbk@haslett.k12.mi.us

Eileen Boekestein, EGLE Environmental Education Coordinator: BoekesteinE@michigan.gov

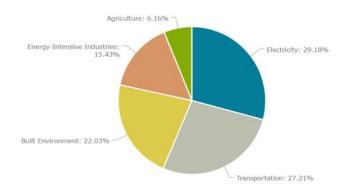
Climate-related funding opportunities for schools:

- <u>Renew America's Schools:</u> Promotes the implementation of clean energy improvements at K-12 public focusing on funding infrastructure upgrades at public school facilities, prioritizing highneed school communities.
 - Next funding round in spring 2024
- <u>2023 Clean School Bus (CSB) Rebate Program (71101</u>): EPA's Clean School Bus (CSB) Program subsidizes the replacement of existing school buses with cleaner buses that result in better air quality on the bus, in bus loading areas, and throughout the communities in which they operate
 - o \$500M total, no match; closes 1/31/2024
 - o Public school districts are eligible
 - Questions: Katrina Morris, <u>kmorris@wsesd.org</u>

MI Healthy Climate Plan – Overview & Implementation:

Compared to 1900, Michigan is almost **3 degrees warmer** and gets around **five more inches** of rain per year.

Where do Michigan's greenhouse gases come from?



Michigan's Climate Commitments:

- EGLE, through the Office of Climate and Energy, was directed to develop, issue, and oversee implementation of the MI Healthy Climate Plan. (Executive Directive 2020-10)
- Reduce emissions from 2005 levels by at least 26-28% by 2025 and 50-52% by 2030 as a part of the US Climate Alliance
- **Economy-wide carbon neutrality no later than 2050** and maintain net negative greenhouse gas emissions thereafter. (Executive Directive 2020-10)
- Address environmental injustices related to climate.

MI Healthy Climate Plan: Mitigation-focused but encourages adaptation. Six action areas include:

- 1. Commitment to environmental justice principles and a just transition that supports displaced workers.
 - a. Ensure that at least 40% of state funding for climate-related and water infrastructure initiatives benefits Michigan's disadvantaged communities.
 - b. Develop Justice 40 in partnership with leaders in disadvantaged communities.
 - c. Emphasize a just transition for all workers through proactive engagement, job training, and workforce development.
- 2. Clean energy production and modernizing the electrical grid.
 - a. Generate 60 percent of the state's electricity from renewable resources and phase out remaining coal-fired power plants by 2030
 - b. Limit the energy burden from powering and heating homes to not more than 6% of annual income for low-income households.



3. Electrifying vehicles and enhancing public transit.

- a. Build the infrastructure necessary to support 2 million electric vehicles on Michigan roads by 2030.
- b. Increase access to clean transportation options including public transit by 15% each year.

4. Repairing and decarbonizing homes and businesses.

- a. Reduce emissions from heating Michigan homes and businesses by 17% by 2030.
- b. Increase investments in repairing and improving buildings to reduce costs for working families and small businesses.

5. Driving clean-energy jobs and innovation.

- a. Encourage clean innovation hubs, where private enterprises strategically collaborate to develop cleaner manufacturing technologies and conduct research and development to reduce emissions from industries that are hard to decarbonize.
- b. Triple Michigan's recycling rate to 45% and cut food waste 50% by 2030.

6. Protecting Michigan lands and water.

- a. Protect 30 percent of Michigan's land and water by 2030 to naturally capture GHG
 emissions, maintain and improve access to recreational opportunities for all
 Michiganders, and protect biodiversity.
- b. Leverage innovative strategies to support climate-smart agriculture.

MI Healthy Climate Plan Implementation Strategies:

State Legislation:

- Changes to C-PACE, PILT
- SB 271: Adopts 100% Clean Energy, Renewable Energy, Storage standards; Expands the distributed generation cap.
- SB 502: Embeds climate, workers, and justice in IRPs, expands participation at MPSC.
- SB 273: Expands energy waste reduction leadership, boosts low-income programs.
- SB 519: Creates Office of Worker and Community Economic Transition.
- HB 5120, HB 5121: Streamlines renewable siting, supports host communities.
- HB 4706: Allows entities to own or operate electric vehicle chargers without being considered a public utility so they can qualify for funding under the Infrastructure Investment and Jobs Act.
- SB 277: Protects farmers' rights to host solar projects.



Federal Funding:

- Climate Pollution Reduction Grants (CPRG): 4-year, \$4.6 billion nationwide competitive implementation grant program to reduce GHG emissions from IRA. SOM received \$3 million planning grant from EPA.
- Greenhouse Gas Reduction Fund (GGRF): 5-year, \$27 billion nationwide competitive
 grant program to combat the climate crisis by mobilizing financing and private capital for GHGreducing projects. Split across the National Clean Investment Fund, Clean Communities
 Investment Accelerator, and Solar For All.
- Community Change Grants: \$2 billion nationwide competitive grant program to benefit disadvantaged communities through projects that reduce pollution, increase community climate resilience, and build community capacity to address environmental and climate justice challenges. Applications accepted on a rolling bases, closes after all funding is awarded.

Stay updated on MHCP Activities

- SOM Climate Hub Site: https://mhcp-egle.hub.arcgis.com/
- Sign up for the <u>Michigan Climate Action News & Updates</u> newsletter
- Register for <u>Upcoming Input Sessions</u>
- Submit to the Call for Projects
- View previous MI Healthy Climate Webinars
- Quarterly Council on Climate Solutions meetings (virtual & in-person)
- Visit Michigan.gov/Climate for more details and additional information
- Questions? Email <u>EGLE-OCE@michiga</u>n.gov



Climate Change Education Resources

The Climate Education Action Team is a collaboration between the <u>Michigan Alliance for Environmental</u> and <u>Outdoor Education</u> and the <u>Michigan Climate Action Network</u>.

View the <u>State of Climate Change Education Survey</u> and learn more about what is happening nationally around climate change education through the <u>North American Association for Environmental Education</u>.

Research on Climate Anxiety and Beliefs/Attitudes about Climate Change

Lancet Planet Health (2021) – <u>Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey</u>

<u>Yale Program on Climate Change Communication</u> – Climate Change and the American Mind, Six Americas Survey → Lessons for Grades 6-12 around these resources

Michigan-Specific Teaching Resources

<u>Michigan Environmental Education Curriculum Support (MEECS)</u> – new Climate Change lessons coming in January 2024, see also Energy Resources lessons.

New! MI EnviroLearning Hub - Interactive lessons and geospatial tools built to support students as part of the MEECS lessons. Climate Change activities available now; Additional MEECS support materials coming in 2024

Michigan Department of Health and Human Service - MI Environmental Public Health Tracking

Great Lakes Integrated Sciences and Assessments - Great Lakes Regional Climate Change Maps

Solution-Focused Teaching Resources

Project Drawdown and the Ecochallenge

Solutions Journalism – Teaching with Solutions Stories; Climate Collection

Climate Optimism (It's not about magical thinking)

All We Can Save – Educator's Toolbox



National and Global Teaching Resources

New York Times – Teach about climate change with these 24 NYT graphs

Climate Central – <u>Infographics for current climate data</u>

EPA - Climate and Economic Justice Screening Tool

Turn It Around! – <u>Digital flashcards of climate artwork with discussion prompts</u>

Science Friday – Illustrated Graphs: Using Art to Enliven Data Lessons

NOAA - Global Climate Dashboard

NOAA – Essential Principles of Climate Literacy

US Global Change Research Program - 5th National Climate Assessment – For social studies connections, see Art x Climate and the poem STARTLEMENT by Ada Limón, 24th Poet Laureate

STEM Teaching Tools - Climate Learning Resources

CLEAN – <u>Climate Literacy and Energy Awareness Network</u> – High quality, curated resources aligned to NGSS

Climate Change Education Solutions Network – <u>Curriculum Resources</u>

To request these materials in an alternate format, contact EGLE does not discriminate on the basis of race, sex, religion, age, national origin, color, marital status, disability, political beliefs, height, weight, genetic information, or sexual orientation in the administration of any of its programs or activities, and prohibits intimidation and retaliation, as required by applicable laws and regulations.